

ABSTRACT

A method of controlling implantation dosages during coding of read-only memory (ROM) devices is disclosed. According to the method, a semi-manufactured ROM device having a plurality of gates with identically designed gate widths is formed, followed by the formation of a first photoresist layer over the semi-manufactured ROM device. The first photoresist layer is selectively exposed to develop a pattern of pre-code openings, with each pre-code opening being positioned over a word line and between two adjacent bit lines intersecting the word line and with the pre-code openings having substantially identical sizes. A second photoresist layer is then formed over the first photoresist layer, followed by selectively exposing the second photoresist layer to develop a pattern of real-code openings therein, with the real-code openings having substantially identical sizes. A tuned dosage of ions is then implanted through intersections of the real-code and pre-code openings to thereby code the ROM device.